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for the Behavioral and Social Sciences**

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**Future Job Clusters**

**Human Resources Research Organization**

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**U.S. Army Research Institute  
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14. ABSTRACT ( <i>Maximum 200 words</i> ): Transformation of the U.S. Army into the Future Force involves changes to missions, systems, and organizational structures. To realize the full potential of transformation, the Army must have the means to select and to assign high quality individuals who, as first-term Soldiers, can meet the training and operational demands emerging with transformation to the Future Force.  This report is part of a series of research product reports that provide to potential users information on products resulting from a project titled <i>New Predictors for Selecting and Assigning Future Army Soldiers (Select21)</i> . The goal of Select21 is to (a) develop and validate new performance predictor measures and (b) propose use of the most promising measures as a foundation for an entry-level selection and classification system adapted to the demands of the 21 <sup>st</sup> century.  The present report describes 16 clusters of jobs that were constructed to cover the domain of Army jobs in the period 2015-2020 and to provide a framework for the Select21 research. The clusters were constructed for research purposes from future-oriented job information, and they are not advanced as a new structure for classification of Army jobs. Regardless, the clusters provide a potentially useful approach for considering the occupational functions of future Soldiers.					
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**Research Product 2005-04**

## **Future Job Clusters**

### **Human Resources Research Organization**

Selection and Assignment Research Unit  
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Personnel Performance  
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## Foreword

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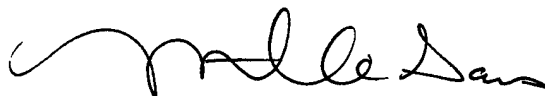
The U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) conducts research to support Army personnel and training goals. In recognition of the changes emerging with the Army's transformation, ARI developed a research program to identify, describe, and address future personnel requirements. This report describes an aspect of an ongoing ARI project concerned with future enlisted Soldiers.

The objective of this project is to provide personnel tests for selecting and assigning entry-level Soldiers to future jobs. This report is part of a series of Product Reports summarizing interim outcomes of this ongoing project.

- ☒ Future job clusters – December 2004
- ☐ Future Army-wide Soldier performance requirements
- ☐ Select21 experimental selection and classification instruments
- ☐ Soldier job performance measurement tools
- ☐ Select21 validation results and recommendations

This report describes the clustering of future entry-level jobs for use as a framework for a future-oriented job analysis. The clusters provide one way of viewing variations in entry-level jobs of the future.

Project Select21 is being conducted with support from the Army G-1, Deputy Chief of Staff for Personnel, and from the Army Training and Doctrine Command (TRADOC). ARI has briefed these sponsors, as well as representatives of other offices to include the Army Accessions Command, Human Resources Command, and the Army G-3, Deputy Chief of Staff for Operations. Research sponsors have provided the support and guidance needed for the success of the research.



MICHELLE SAMS  
Technical Director

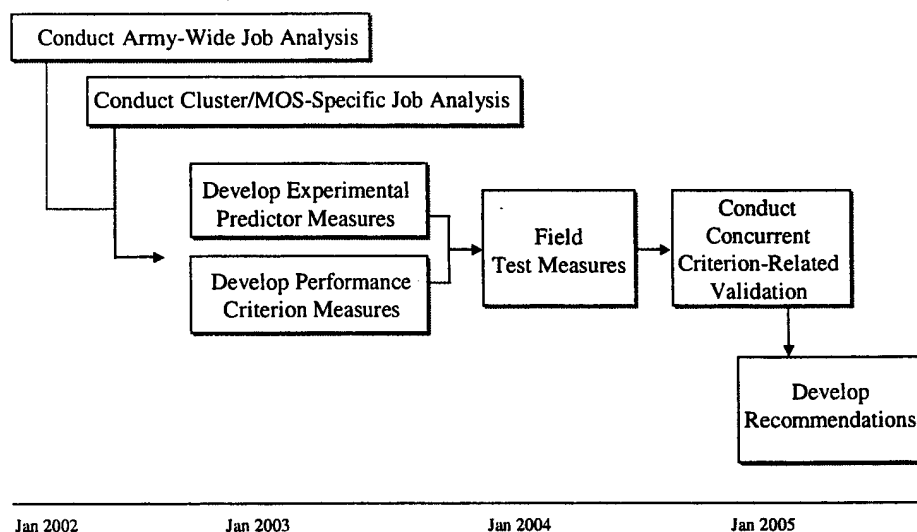
## What is Project Select21?

The U.S. Army has undertaken far-reaching changes to transform the current force into one that is more responsive, deployable, agile, versatile, and lethal while being fully survivable and sustainable under all conditions. *New Predictors for Selecting and Assigning Future Force Soldiers (Select21)* is an Army research project oriented on the personnel system by which the Army selects entry-level Soldiers and assigns the Soldiers to jobs. Select21 is designed to help ensure that through this system, the Army will acquire new Soldiers with the knowledges, skills, and attributes (KSAs) needed for performing the types of tasks emerging as part of the transformation. More specifically, the objectives of Select21 are to develop measures of these KSAs and to evaluate their potential for integration into the Army's personnel acquisition system.

## What is this report about?

A schematic overview of Select21 is shown below. This report describes an early product of the job analysis. To support the development of measure for use in the selection of Soldiers, the job analysis needed to cover the full spectrum of the job requirements projected for future Soldiers. To support the development of measures for use in the assignment of Soldiers to jobs (that is, job classification), the job analysis needed to provide sufficient detail on the job requirements more or less specific to particular jobs and for determining the likely fit of a Soldier with alternative jobs.

The product described here sought to accommodate these conditions. Rather than attempting to describe each and every job, the research sought to develop "job clusters" as the level of description for research on future Soldier selection and assignment. The goal was to identify relatively generic occupational categories that provide a functional characterization of future jobs. It was anticipated that Soldier requirements applicable to all clusters of future jobs would provide a jobs framework for research on selection. Concentration on a subset of the clusters would allow examination of the potential for measures useful for Soldier assignment to different future jobs. This report specifies and describes the job clusters developed for Select21.





## Future Job Clusters

Table 1 contains a list of the 16 job clusters identified for Select21. The following sections contain narrative descriptions of the clusters. The narrative for a cluster first describes the primary functions associated with that cluster. It includes a brief synopsis of the types of activities associated with entry-level Soldiers (Skill Level 1) who operate within that cluster and a sample of current MOS that would fit in the cluster. Each narrative also includes a summary of *Future Trends* for the cluster. These *Future Trends* are general projections regarding how jobs in the cluster will be affected under Future Force technology, structure, and operational doctrine. Naturally, projections here reflect the information available at the time they were drafted and are subject to constant refinement and redefinition as the path toward the Future Force unfolds.

*Table 1. List of Select21 Job Clusters*

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1. Close Combat
  2. Non Line-of-Sight Fire
  3. Surveillance, Intelligence, and Communications
  4. Unmanned Vehicle/Robotics Operator
  5. Security and Civil Affairs
  6. Mechanical Maintenance/Repair
  7. Electronics Maintenance/Repair
  8. Aircraft Maintenance/Repair
  9. Administration
  10. Logistics/Supply Support
  11. Heavy Equipment Operator
  12. Craftworker
  13. Medical Care, Health, and Well-Being
  14. Skilled Science Technician
  15. Media Specialist
  16. Band
-

## Future Job Cluster Descriptions

### Cluster 1: Close Combat

The primary functions of these jobs are to (a) close with and destroy enemy personnel, weapons, equipment, and structures, using fire and maneuver, in both offensive and defensive operations; and (b) control, deny, or occupy disputed or hostile terrain. These include the battlefield functions of mobility and survivability as well as most ground reconnaissance, surveillance, and target acquisition. At Skill Level 1 (SL1), incumbents perform as riflemen, crew loaders, assistant machine gunners, and pioneer team members. Incumbents also perform platform and weapons preventive maintenance checks and services (PMCS). *Sample MOS:* 11B - Infantryman; 19D - Calvary Scout.

*Future Trends:* The overall battlefield orientation for jobs in this cluster is not likely to change during the period of transformation. However, the distinctions among many of the Close Combat jobs will lessen as the Army transforms. For example, the employment of Stryker Brigade Combat Team (SBCT) and future combat system (FCS) platforms will likely reduce the distinction between infantry and armor as mounted and dismounted Soldiers fight as single, integrated teams.

### Cluster 2: Non Line-of-Sight Fire

The primary function of these jobs is to operate platforms that (a) support maneuver forces to destroy, neutralize, or suppress the enemy by cannon, rocket, or missile fire; and (b) detect, engage, and destroy enemy aerial and missile attack and to neutralize enemy surveillance (including enemy unmanned aerial vehicles [UAVs]). This cluster includes both field artillery and air defense artillery Soldiers. Skill Level 1 (SL1) incumbents are primarily ammunition handlers and perform systems preventive maintenance checks and services (PMCS). *Sample MOS:* 13B - Cannon Crewmember; 13M - Multiple Launch Rocket System (MLRS) Crewmember.

*Future Trends:* Substantial change is likely to be driven by advances in technology and by organizational changes. Currently, job distinctions exist among direct fires, different kinds of indirect fires (e.g., howitzers and rockets), and different kinds of air defense (e.g., tactical ballistic missile defense and short-range air defense [SHORAD]). Common future combat systems (FCS) platforms should provide line of sight (LOS), non-line of sight (NLOS), and beyond line of sight (BLOS) fire support in the 0 to 50 km range for ground targets, eventually replacing all current indirect fire platforms. These may likely also provide SHORAD. Endo- and exo-atmospheric threats will likely still require separate to-be-designed platforms, although space-based weapons could assume some coverage. Future target acquisition will likely be completely automated, thus eliminating target acquisition as a distinct job.

### **Cluster 3: Surveillance, Intelligence, and Communications**

The primary function of these jobs is to provide (a) surveillance; (b) intelligence; and (c) video, voice, and data communications support to forces in tactical environments. They provide information about the location and disposition of the enemy and facilitate communication among friendly forces. This function is very much equipment-dependent, and increasingly the equipment is both computer-based and systems-specific. At Skill Level 1 (SL1), incumbents primarily (a) set up and operate equipment, (b) install wiring and components, (c) record/report data and information, (d) repair/troubleshoot, and (e) prevent electronic countermeasures. These individuals work under the supervision of more experienced personnel. *Sample MOS: 31U/25U - Signal Support Systems Specialist; 74B/25B - Information Systems Operator/Analyst.*

*Future Trends:* Surveillance, intelligence, and sophisticated communications equipment is proliferating and moving to lower levels. Capabilities once found echelons above corps will increasingly be found at battalion level. There will be fewer cable-related tasks, as communications become increasingly wireless, satellite, and fiber-optic based. Technological advances are likely to simplify the set-up and operation of equipment and some tasks will become more automated (e.g., integrating data from multiple systems and tracking and identifying targets). These technicians may begin to have an increasingly larger role in software troubleshooting, debugging, and programming. Advances in automation and artificial intelligence capabilities could eventually eliminate the requirements for specialized job incumbents. However, as with all clusters that center on evolving electronic and computer capabilities, the short-term and long-term outlooks are very different. In the short-term, this cluster may become more diverse and demanding. As technologies mature, these jobs may become less specialized and eventually be consolidated.

### **Cluster 4: Unmanned Vehicle/Robotics Operator**

Currently this cluster is limited to a single MOS (96U) supporting a single unmanned aerial vehicle (UAV). The proponent is military intelligence (MI). UAVs provide real time imagery intelligence (IMINT) at division and corps level for reconnaissance, surveillance, target acquisition, and battle damage assessment. Skill Level 1 (SL1) incumbents perform preventive maintenance checks and services (PMCS), refueling, and loading/unloading operations. *Sample MOS: 96U - Unmanned Aerial Vehicle Operator.*

*Future Trends:* As the technology matures and expands, this function should eventually envelop logistics and fire support as well as the full spectrum of air and ground reconnaissance, surveillance, and target acquisition. Casualty stabilization and evacuation (including telemedicine) and mine detection/clearing will also likely become the province of unmanned vehicles and/or robotics. Incumbent tasks will include operator maintenance, loading and unloading, recovery, and possibly some programming. Air systems will likely continue to require unique support and will remain separate. Ground systems may have more commonality and hence have less need for system specific operators. As systems proliferate, a new proponenty is likely to evolve.

### **Cluster 5: Security and Civil Affairs**

This cluster is typified by operations in hostile, non-hostile, and semi-hostile environments, often in missions that do not require the commitment of combat forces. Security and Civil Affairs Soldiers (a) support tactical operations by providing area security, battlefield circulation control, processing of prisoners of war (POWs) and detainees, and reconnaissance and surveillance; (b) collect human intelligence (HUMINT) or information about criminal activity; (c) analyze, summarize, and report intelligence/information; and/or (d) disseminate persuasive or informational communications to indigenous civilian and combatant personnel (i.e., psychological operations [PSYOP]). Both PSYOP and HUMINT collection can require specific foreign language skills. *Sample MOS:* 31B - Military Police; 38A - Civil Affairs Specialist (RC).

*Future Trends:* The functions of this cluster are likely to expand; however, little change is forecast in the basic operating posture of jobs in this cluster. Nevertheless, shifts away from specific theaters of interest to more global but localized conflicts will increase the diversity of possible employment. Increasingly, persons in this cluster will work directly with other government non-military groups and non-government organizations (NGOs) fulfilling mission specific requirements. The development of non-lethal force technology will enhance the capabilities during missions. Language translation technology may minimize the need to speak foreign languages.

### **Cluster 6: Mechanical Maintenance/Repair**

The primary function of these jobs is to repair and maintain internal combustion engines and accessories, power trains, chassis components, weapon systems, and/or shop equipment. Maintenance activity jobs are organized by echelon: unit maintenance (UM), direct support (DS) maintenance, and general support (GS) maintenance, with the scope of job activity being determined by the level of assignment. However, at all echelons, common Skill Level 1 (SL1) activities include inspection, damage assessment, troubleshooting, and the use of diagnostic equipment. *Sample MOS:* 63B - Wheeled Vehicle Mechanic; 52D - Power Generation Equipment Repairer.

*Future Trends:* The introduction of future combat systems (FCSs) could profoundly affect the number and types of jobs in this cluster, likely streamlining the cluster. Simplifying required maintenance support is a major goal of the Future Force, and increased reliability and modular components could eliminate or greatly alter existing maintenance echelons. Simplification of UM functions could replace UM jobs with crew functions. The objective is to go from the current mechanic-to-systems ratio of 1:2 to a ratio of 1:23. At what are now DS and GS, new maintenance doctrine will be targeted toward split-based operations, modular unit operations, and reduced repair time. GS maintenance may be contracted out in the future. Minimizing the number of different types of FCS platforms will reduce the need for platform-specific maintainers.

### **Cluster 7: Electronics Maintenance/Repair**

The primary function of these jobs is to install, repair, and maintain electronic equipment, including communications and digital subsystems. Activities include system maintenance, diagnosing problems, and troubleshooting. Like the Mechanical Maintenance Cluster, electronics maintenance is echeloned by unit maintenance (UM), direct support (DS) maintenance, and general support (GS) maintenance. However, there are some highly specialized electronics maintenance systems, particularly in the communications and computer fields. Some of these are one-of-a-kind systems, and many are military adaptations of civilian electronic applications. *Sample MOS:* 33W - Military Intelligence Systems Maintainer/Integrator; 27E/35A - Land Combat Electronic Missile System Repairer.

*Future Trends:* Increasingly, operators of specialized communications and computer systems will become maintainers as well. Most electronics repair will become modular replacement accomplished by the operator or crew. Eventually, standardization and increased electronics reliability will reduce the numbers and specialization required in this cluster; however, the short-term future is likely to be the opposite. As digital and information operations systems proliferate and more commercial-off-the-shelf systems are used, the demand for electronics and computer specialists is likely to increase. However, the long-term trends in this cluster will be very much like those outlined for Mechanical Maintenance, with increased contractor support and changes in the echelon system of maintenance.

### **Cluster 8: Aircraft Maintenance/Repair**

The primary function of these jobs is to install, repair, and maintain aircraft mechanical, electrical, and/or electronic systems. Activities include inspection, damage assessment, the use of diagnostic instruments, and troubleshooting. Aircraft maintenance is a highly specialized function, traditionally with less tolerance for error than other maintenance functions. Most aircraft maintenance jobs are system specific, and incumbents are trained to perform on only one particular airframe. As with other maintenance assignments, jobs in this cluster are echeloned. At the unit maintenance (UM) level, incumbents serve as crewchiefs and assistant crewchiefs on individual aircraft. *Sample MOS:* 67T/15T - UH60 Helicopter Repairer; 68F/15F - Aircraft Electrician.

*Future Trends:* No significant near-term changes are foreseen in this cluster. Jobs will likely continue to be airframe specific in the near- to mid-term. If new airframes are introduced (such as the Comanche), new aircraft maintenance and repair jobs will accompany them. At some point, Army aircraft, such as the Future Transport Rotorcraft, will likely become robotic which could eventually drastically change the focus and function of the cluster. However, current force aircraft will be retained far into the Future Force, and it is likely that the current system of maintenance and repair for those airframes will remain unchanged.

### **Cluster 9: Administration**

The primary function of these jobs is to provide administrative services in a variety of areas including personnel, accounting, finance, and information management. Activities include (a) preparing correspondence; (b) completing forms; (c) maintaining records and files; (d) explaining policies, rules, or regulations to others; (e) obtaining required authorizations, approvals, endorsements, or signatures; and (f) data entry. *Sample MOS:* 71L/42L - Administrative Specialist; 91G/68G - Patient Administration Specialist.

*Future Trends:* As the Army moves to greater digitization, administrative records and forms are becoming less paper-based. Digital applications using commercial hardware and software are likely to result in a greater need for basic computer skills in word processing, Internet use, e-mail, spreadsheets, and database software. Digital records and communications technology will allow most administrative functions to be centralized at higher levels, eventually reducing the overall staffing requirements in this cluster. A single individual at unit level may be able to perform all administrative functions including personnel, finance, administration, and record keeping via access to unlimited databases.

### **Cluster 10: Logistics/Supply Support**

The primary operational function of jobs in this cluster is to provide logistical support to deployed troops. Activities include (a) operating transportation vehicles, (b) preparing supplies for shipment, (c) unloading and unpacking supplies, (d) maintaining inventory records, and (e) distributing supplies. *Sample MOS:* 77F/92F - Petroleum Supply Specialist; 92A - Automated Logistical Specialist.

*Future Trends:* A central goal of the Future Force is the reduction of the logistics footprint. At some point, initiatives will affect this cluster in size, function, organization, and location (e.g., number of persons needed may decrease, inventory and accounting duties may be automated). The technological advances of the future combat system (FCS) will reduce the amount and bulk of both Class III (petroleum products/fuel) and V (ammunition) supplies, two of the most significant logistical requirements. Prime vendors will send supplies directly to the area of operations, reducing the time and distance they are under Army control. Although system support packs and configured loads will reduce handling and stockage requirements, the overall supply and support function is bound to remain at some level.

### **Cluster 11: Heavy Equipment Operator**

The primary function of jobs in this cluster is to operate construction, earthmoving, and large-scale excavation, grading, and lift equipment. Heavy equipment operators build skill through experience; entry-level jobs include equipment maintenance and basic level operator jobs performed under supervision. Equipment is generally militarized versions of civilian models. *Sample MOS:* 12C/21C - Bridge Crewmember; 62E/21E - Heavy Construction Equipment Operator.

*Future Trends:* Little change is foreseen in this cluster. Technology changes in civilian construction and transportation equipment will be reflected in military procurement of like items. There may be a trend towards increased contracting of these services, even in operational theaters, which may eliminate some of the more specialized operator jobs.

### **Cluster 12: Craftworker**

The primary function of jobs in this cluster is to fabricate and maintain facilities and/or equipment. The majority of these jobs have fairly direct civilian equivalents (e.g., machinist, interior electrician, and plumber). Activities include (a) reading plans and specifications; (b) determining the tools, equipment, and materials needed; (c) assembling, installing, and/or fabricating; and (d) maintaining tools and equipment. *Sample MOS:* 44B - Metalworker; 51B/21W - Carpentry and Masonry Specialist.

*Future Trends:* Advances in technology and the need for a smaller logistical tail may result in the consolidation of some of these jobs and increased contracting of these activities to vendors, particularly within the continental United States (CONUS).

### **Cluster 13: Medical Care, Health, and Well-Being**

The primary function of jobs in this cluster is to provide care to personnel in terms of physical, psychological, and emotional well-being. Activities include administering emergency medical treatment, preparing clients/patients for procedures, maintaining patient files, and assisting chaplains and counselors. The primary focus is on active Army personnel but with a significant demand from families, a large retiree population, and a requirement to support indigenous populations during deployments. *Sample MOS:* 91E/68E - Dental Specialist; 91W/68W - Health Care Specialist.

*Future Trends:* Army medical specialists are at the start of a major transition period that will consolidate many existing medical jobs. Combat medics and licensed practical nurses will be combined into a single health care specialist job. Junior enlisted health care specialists will be required to gain certification by the National Registry of Emergency Medical Technicians, Basic Trauma Life Support and Trauma AIMS (trauma assessment, advanced airway, IV therapy, medication, and shock management). Long-term changes include increases in battlefield telemedicine and emphasis on robotic evacuation supported by buddy-aid and unit combat lifesavers. Services may eventually combine their medical care into a single joint services organization.

### **Cluster 14: Skilled Science Technician**

Jobs in this cluster cover a variety of areas. Their common threads are that they require skill in a scientific domain (e.g., biology, chemistry, and meteorology). Activities in these jobs include (a) inspecting; (b) following instructions, protocols, or laboratory procedures; (c) collecting and analyzing data; and (d) preparing and filing reports. *Sample MOS:* 91K/68K - Medical Laboratory Specialist; 77L/92L - Petroleum Laboratory Specialist.

*Future Trends:* Advances in analytical technology are likely to simplify some aspects of performance while requiring specialized knowledge for operation of the technology. While some of the new technology will be specific to the military, much of it is likely to be commercially available software for tasks such as data analysis and information management. Jobs that require field operations or collection of data under operational conditions may be supplemented or replaced by technology such as unmanned and satellite systems. Increased civilianization or contract support could eliminate much of the core activity of this cluster.

### **Cluster 15: Media Specialist**

Currently this cluster is conceptualized as including two subclusters: (1) media content and (2) media production. Media content jobs focus on preparing scripts and news releases and disseminating news and information. Media production jobs focus on operating collection and broadcast equipment and creating visual and audio information products. *Sample MOS:* 25V - Combat Documentation/Production Specialist; 46Q - Public Affairs Specialist.

*Future Trends:* In the future, production activities will be increasingly automated so that only the content tasks may remain. While there is historical precedent for maintaining Soldier journalists and reporters, much of this cluster could become civilianized in the future.

### **Cluster 16: Band**

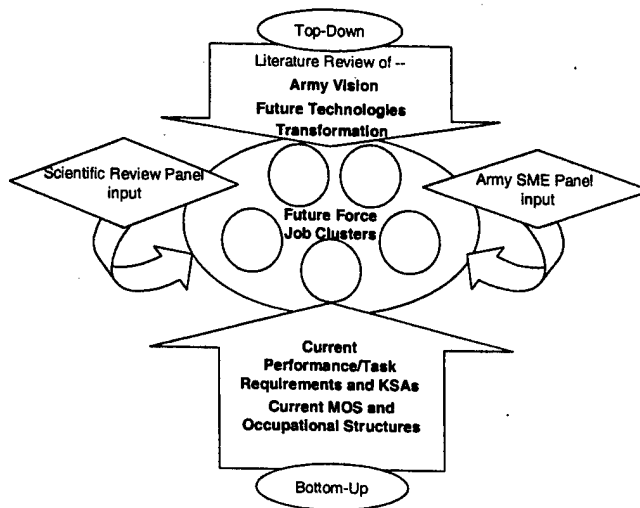
Band members constitute the oldest continuous Army occupational cluster, dating back to colonial militias. There are approximately 20 active duty bands and an additional 30 reserve component bands. Band members usually perform on woodwinds and brass, percussion, and rhythm instruments. Entry-level Soldiers must possess pre-enlistment musical skills including sight-reading and instrument playing. Band members must pass an audition with a band before they are allowed to enlist in this cluster.

*Future Trends:* Little if any change is foreseen in this cluster for the Future Force. Army bands will continue to play a significant role in the morale and public relations missions of the Army. Strong historical precedence will ensure the continuation of Soldier bands in traditional roles no matter what the evolution of the Future Force. Bands recently consolidated individual instrument MOS designations down to the following two MOS: 02A/42R - Army Bandperson; 02S/42S - Special Band Member.



## Cluster Development

Coverage of the full spectrum of future Army jobs and a focus on specific jobs imposed several challenges. These included the flux and revision of the current job structure, the likely large number of separate future jobs, and the lack of specificity about future jobs that are still emerging. Our approach for developing job clusters is illustrated in Figure 1.



*Figure 1. A schematic of the top-down, bottom-up approach for arriving at Future Force job clusters.*

We approached Army jobs and the future from two directions: top-down and bottom-up. The top-down approach involved (a) reviews of strategic-level sources on the Future Force and future technologies and (b) interviews with organizations and individuals involved in the transformation process. This approach helped to sketch out a broad, wide-ranging picture of Future Force Soldier requirements. Specifically, the top-down review provided information on four key topics:

1. Future missions and operations to be conducted by the Future Force;
2. Anticipated task/performance requirements of personnel conducting future missions;
3. New technology such as weapons, tools, and vehicles (e.g., robotics) and the effect of technological change on personnel requirements; and
4. Anticipated changes in force structure and the organization of jobs.

The bottom-up approach analyzed current MOS descriptions and current classification criteria. These included the CMF, Army aptitude area (AA) job families, and alternative job families proposed by recent research. Bottom-up information is relatively specific; it provides future performance/task requirements with greater specificity, particularly for requirements that will not change over time. Bottom-up information is also comprehensive; it addresses the full

range of jobs in today's Army. The bottom-up process helps ensure that segments of the current force structure are not overlooked in a futures oriented research project.

Clustering was done in a series of workshops involving Select21 project staff and Army subject matter experts (SMEs). Clusters were refined based on input gathered during site visits and briefings involving various Future Force participants and representatives from Army combat, combat support, and combat service support functions. Overall, the job clusters had to meet the following criteria:

- The clusters need to fully represent anticipated changes in the Army during the time period of interest.
- The clusters need to describe the full domain of future Army jobs.
- Jobs within each cluster need to be more similar to each other in terms of duties and other requirements than jobs across clusters; that is, clusters should be differentiated in terms of performance/task requirements.
- The clusters need to be described in sufficient detail to support the Select21 requirements for detailed analysis and further development of measurement criteria.

The job-clustering activities were guided by an explicit assumption about the period of time on which to focus. At the time project staff were developing the future job clusters, Army documents spoke of transformation in terms of the Legacy Force, an Interim Force, and the Objective Force. The Legacy Force (now commonly referred to as the current force) consists primarily of systems currently in use. The Interim Force was beginning to take shape in the form of Stryker Brigade Combat Teams (SBCTs). Finally, the Objective Force (now referred to as the Future Force) is the Army that will be. The idea is that when transformation is complete, the Future Force, driven by the influence of future combat systems (FCS) development, new organizations, and an expanding variety of missions, will be significantly different than the current Army. However, the fact that the Future Force is likely to be different from the current force has two important qualifications. The first is that the period of transformation to the Future Force is projected to last, minimally, from 2002 to 2032. The second qualification is that plans for the Future Force include modified versions of a significant number of currently operational systems. This conceptualization of transformation implies that the next several years will include elements of all three forces. As our goal is to develop measures of KSAs that will be useful over the course of the transformation, we focus on the time period during which the current force, interim forces, and the Future Force are roughly equally proportional in representing Army manpower requirements. Using current projections, this period equates to approximately 2015 to 2020.

## **Other Potential Applications**

Although clustering was done for a very specific purpose in Select21, the clustering process reflects an occupational analysis of Army functions at a very useful level. Concentrating on requirements rather than individual jobs is intended to allow for assessment unencumbered by the specificity of detailed job descriptions while still capturing the performance requirements inherent in the cluster. This approach was extremely helpful when considering the functions in the context of future performance.

While the intention of the clusters was to serve the Select21 research and not to advocate replacement of any existing Army jobs taxonomy, the job clusters provide an approach for considering the functions which Soldiers are enlisted to perform. They provide a jobs overview at a level that is convenient for considering impacts of changing equipment, doctrine, training, and organizational structure. As the traditional distinctions of combat, combat support, and combat service support become less meaningful under Future Force employments, the clusters tool becomes a constructive format for looking at Soldier requirements in the future. To be sure, the cluster descriptions are not final, nor are the clusters. As Future Force developments progress, the clusters must be refined to match new knowledge. But the existing clusters provide a start point and a sound basis for futures analysis.

## **Who is involved in this work?**

Select21 research and products will ultimately result in recommendations to the Assistant Secretary of Defense for Manpower and Reserve Affairs. The offices sponsoring this project are the Army G-1 and the Training and Doctrine Command (TRADOC). The U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) is conducting the research, largely through work performed under contract to the Human Resources Research Organization (HumRRO).

## **How to contact us and for more information**

Your reactions and suggestions for these Research Product Reports are important, and we solicit input on the Select21 project. We also will try to answer any questions you might have. If you have any input or want to learn more about Select21 and its current status, please contact:

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